

REMARKS

Claims 1-10 are pending in the present Application. Claim 1 has been amended, claims 2, 3, and 5 have been canceled, and claims 6-10 have been withdrawn, leaving claims 1 and 4 for consideration upon entry of the present Amendment. No new matter has been introduced by the amendment as antecedent basis can be found at least at p. 5, lines 8-11 of the specification as originally filed.

Reconsideration and allowance of the claims are respectfully requested in view of the above amendment and the following remarks.

Claim Rejections Under 35 U.S.C. § 102(b)

Claims 1, 4, and 5 stand rejected under 35 U.S.C. § 102(b), as allegedly anticipated by U.S. Patent No. 6,277,480 ("Veerasamy") as evidenced by Theil et al. (J. Vac. Sci. Technol. (1990) 8(3); 1374-1381, see p. 1374, col. 1). Applicants respectfully traverse this rejection.

The amended claim 1 requires, *inter alia*, that "the film is formed directly on the substrate made of silicon or glass and having silanol groups."

Applicants contend that Veerasamy does not anticipate the amended claim 1 since the reference does not contain all elements required by the claim. Specifically, Veerasamy teaches a coated article including at least one diamond-like carbon ("DLC") inclusive layer and at least one layer deposited using a siloxane and/or oxygen inclusive organosilicon compound gas provided on a substrate (e.g., glass). According to Veerasamy, the substrate has coated thereon at least the "index matching layer 2" and the "DLC inclusive layer 3," and optionally contains the "primer layer 4" and the "fluoro-alkyl silane ("FAS") compound inclusive layer 6" coated thereon (col. 5, lines 34-51). Veerasamy does not disclose or suggest coating a substrate surface directly with the FAS compounds, an element required by the amended claim 1.

Veerasamy therefore does not anticipate the amended independent claim 1. Claim 4 depends from claim 1. Claim 5 has been canceled, thus the rejection of this claim is moot.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of the claims over Veerasamy.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1 and 4 remain rejected under 35 U.S.C. § 103(a) as unpatentable over Hozumi et al., *Langmuir*, **1999**, 15(22), 7600-7604 (“Hozumi”).

Applicants appreciate the Examiner’s acknowledgment that the evidence submitted in the response to Office Action dated March 27, 2007 regarding silicon and glass surfaces are persuasive and the withdrawal of the rejection of claim 5.

In the last response (dated May 2, 2007) to the Office Action dated March 27, 2007, Applicants had argued that

when a mixture of FAS compounds is used to treat a substrate surface, an unexpected high yield of PCR product is obtained. This unexpected result is illustrated by Example 1 in which a silicon substrate surface has been treated using a mixture of compounds having the formulae of $(\text{MeO})_3\text{-Si-(CH}_2\text{)-CH}_3$ and $(\text{MeO})_3\text{-Si-(CH}_2\text{)}_2\text{-(CF)}_7\text{-CF}_3$ as taught by the present application. In particular, the PCR product yield of Example 1 is 40.1 ng/ μl . This result is unexpected since it is about 8-times higher than the PCR product yield obtained using a substrate surface treated by a single FAS compound (e.g., product yield obtained in Comparative Example 1), and comparable to the amount of PCR product obtained when the PCR is carried out in a polypropylene tube, a typical apparatus used for carrying out PCR reactions (See, Table 1; also, compare Figures 2, 3, and 5).

(Response dated May 2, 2007)

In the present Office Action dated May 14, 2007, the Examiner had indicated that the argument was persuasive with regard to Claim 5. (See, p. 2) Applicants have amended Claim 1 to include the limitation of Claim 5 (i.e., to require that “the substrate be made of silicon or glass having silanol groups.”) These groups produced the unexpected results demonstrated in the Example 1. Applicants therefore submit that the amended claim 1 is nonobvious over Hozumi, because it is supported by the objective evidence of non-obviousness discussed above. Claim 4 depends from Claim 1. Applicants respectfully request a withdrawal of the obviousness rejection over Hozumi and an allowance of the claims.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance are requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Respectfully submitted,

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